

**ABSTRACT OF THE DISCLOSURE**

An integrated circuit includes a semiconductor substrate with semiconductor devices formed therein and thereon, a first wiring layer located over the substrate, a second wiring layer located on the first wiring layer, and a capacitor. The capacitor has metal-based charge-storage electrodes that extend through the second wiring layer and at least part of the first wiring layer. 5 The wiring layers have interconnect wire embedded therein.